SEQUENCE LISTING

<110> The University of Nottingham

<120> GENETIC SCREENING

<130> 16-007

<140> US 09/914,811
<141> 2001-08-30

<150> PCT/GB00/00761
<151> 2000-03-03

<160> 4

<170> PatentIn version 3.1

<210> 1
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<212> DNA
<213> Artificial

<220>
<223> Description of Articifical Sequence: Primer. Part of vector sequence for the pZero-2 cloning vector (full sequence for the vector available from http://www.invitrogen.com/vecseq_gcg/pzero2.seq)

<400> 1
agtaacggcc gccagtgtgc tg 22

<210> 2
<211> 21
<212> DNA
<213> Artificial

<220>
<223> Description of Articifical Sequence: Primer. Part of vector sequence for the pZero-2 cloning vector (full sequence for the vector available from http://www.invitrogen.com/vecseq_gcg/pzero2.seq)

<400> 2
cgagcggccg ccagtgtgat g 21

<210> 3

<211> 20
<212> DNA
<213> Homo sapiens

B1

<400> 3
gcagtagagc agtcagggag 20

<210> 4
<211> 23
<212> DNA
<213> Homo sapiens

<400> 4
ggggagagaa agaaacaagt ttg 23

Please replace the third full paragraph beginning on page 6 and extending to the top of page 7 with the following:

The initial mix of 43 probes was subcloned from plasmids and plasmid fragments known from sequencing or hybridisation not to contain dispersed repeat elements; in the case of one of the Y-linked probes (SRY), a 1360bp fragment was amplified using primers SRYA, SEQ ID NO: 3, (5′GCAGTAGAGCAGTCAGGGAG3′) and SRYB, SEQ ID NO: 4, (5′GGGGAGAGAAAGAAACAAGTTTG3′). Other sources of cloned genomic DNA were: chromsome 1, pJBT2 (JALA, unpublished); chromosome 17, pYNZ22 (Nakamura et al., 1988); chromosome 18, pMS440 (Armour et al., 1990); chromosome 22, pMS632c (Armour et al., 1995); chromosome X, pMS613 (Armour et al., 1990). After isolation of the genomic insert and digestion with frequently-cutting restriction enzymes producing blunt ends (generally double digestion with *Alu*I plus *Hae*III), the resulting smaller fragments were cloned into the *Eco*RV site of pZero2 (InVitrogen) and propagated in *E.coli* TOP10 (InVitrogen). Care was taken to avoid repeat regions in DNA from minisatallite containing clones.

Please replace the first full paragraph on page 7 with the following:

With reference to Fig. 6, probes prepared by cloning blunt-ended restriction fragments from primary clones into the *Eco*RV site of pZero2 (InVitrogen) were amplified directly from bacterial cells (Sandhu et al., 1989) using flanking vector primers PZA, SEQ ID NO: 1, (5′AGTAACGGCCGCCAGTGTGCTG3′) and PZB, SEQ ID NO: 2, (5′CGAGCGGCCGCCAGTGTGATG3′). The positions of these primers in the pZero-2 cloning site is shown in figure 6. PCR was carried out in Advanced Biotechnologies Buffer IV (75mM Tris-HCl pH8.8, 20mM $(NH_4)_2SO_4$, 0.01% Tween), with 0.2mM each dNTP, 1mM $MgCl_2$, 0.2μM each primer and 0.05U/μl Taq DNA polymerase (Advanced Biotechnologies). Reactions (generally 10μl) were subjected to 25 cycles of (95°C for 1 minute/70°C for 1 minute). Products amplified using ^{33}P end-labeled PZA were separated on denaturing 6% polyacrylamide/50% urea gels and probe mixes assembled such that the mobilities of all probes were distinct.